

Claims

- [c1] What is claimed is:
- An enclosure assembly for a fingerprint sensor, the enclosure assembly comprising:
- a stationary member including at least two substantially parallel sidewalls, the sidewalls partially defining a cavity in which the fingerprint sensor is disposed;
- a moveable access piece, which has a surface area larger than the surface area of the fingerprint sensor, the moveable access piece having a conductive portion electrically coupled to ground, wherein the moveable access piece is configured to move relative to the stationary member; and
- a movement apparatus configured to maintain the moveable access piece in a position covering the fingerprint sensor and yet to allow motion of the moveable access piece relative to the stationary member so as to expose the fingerprint sensor.
- [c2] The enclosure assembly of claim 1, wherein the movement apparatus comprises a spring to engage the moveable access piece and the stationary member, the spring configured to apply sufficient pressure to the moveable access piece so as to generally maintain the moveable access piece in the position covering the fingerprint sensor.
- [c3] The enclosure assembly of claim 2, further comprising an image quality indicator means communicatively coupled to the fingerprint sensor, the image quality indicator configured to signal whether biometric information collected by the fingerprint sensor is acceptable.
- [c4] The enclosure assembly of claim 2, further including at least one image alignment guide configured to define a stop position for the moveable access piece such that the moveable access piece is capable of defining at least two image alignment positions for the finger from which the fingerprint sensor can collect biometric information.
- [c5] The enclosure assembly of claim 1, further comprising a switch configured to electrically couple a power supply to the fingerprint sensor after the moveable

access piece exposes at least a portion of the cavity.

- [c6] The enclosure assembly of claim 1, wherein the moveable access piece has a first end and a second end, the first end having a concave surface portion configured to receive a fingertip;
- [c7] The enclosure assembly of claim 1, wherein the movement apparatus comprises a motor that controls the motion of the moveable access piece relative to the fingerprint sensor.
- [c8] An enclosure assembly for a fingerprint sensor, the enclosure assembly comprising:
a stationary member including at least two substantially parallel sidewalls, the sidewalls partially defining a cavity in which the fingerprint sensor is disposed;
a moveable access piece, which has a surface area larger than the surface area of the fingerprint sensor, the moveable access piece having a conductive portion electrically coupled to ground, wherein the moveable access piece is configured to move relative to the stationary member;
a movement apparatus configured to maintain the moveable access piece in a position covering the fingerprint sensor and yet to allow motion of the moveable access piece relative to the stationary member so as to expose the fingerprint sensor; and
a switch configured to electrically couple a power supply to the fingerprint sensor after the moveable access piece exposes at least a portion of the cavity.
- [c9] The enclosure assembly of claim 8, wherein the movement apparatus comprises a spring to engage the moveable access piece and the stationary member, the spring configured to apply sufficient pressure to the moveable access piece so as to generally maintain the moveable access piece in the position covering the fingerprint sensor.
- [c10] The enclosure assembly of claim 8, wherein the movement apparatus comprises a motor that controls the motion of the moveable access piece relative to the fingerprint sensor.

- [c11] The enclosure assembly of claim 8, further comprising an image quality indicator means communicatively coupled to the fingerprint sensor, the image quality indicator configured to signal whether biometric information collected by the fingerprint sensor is acceptable.

- [c12] The enclosure assembly of claim 8, further including at least one image alignment guide configured to define a stop position for the moveable access piece such that the moveable access piece is capable of defining at least two image alignment positions for the finger from which the fingerprint sensor can collect biometric information.

- [c13] A method for enrolling a composite image of an object using a fingerprint sensor comprising the steps of:
 receiving a finger disposed over a fingerprint sensor, the finger in a first stationary position;
 capturing a first image of a first portion of the finger with the fingerprint sensor;
 causing the finger to be repositioned over the fingerprint sensor in a second stationary position;
 capturing a second image of a second portion of the finger with the fingerprint sensor; and
 constructing a representative image of the finger from the first and second images.

- [c14] The method of claim 13, wherein prior to the step of receiving, the method comprises the step of discharging electrostatic energy from the finger through a moveable access piece disposed over the fingerprint sensor.

- [c15] The method of claim 14, further comprising the step of engaging a power source with the fingerprint sensor after the moveable access piece is moved from a position protecting the fingerprint sensor.

- [c16] The method of claim 13, further comprising the step of engaging a power source with the fingerprint sensor after the moveable access piece is moved

from a position protecting the fingerprint sensor.

[c17] The method of claim 16, further comprising the step of disengaging the power source from the fingerprint sensor when the moveable access piece is returned to the position protecting the fingerprint sensor.

[c18] The method of claim 13, wherein the step of causing includes the steps of: analyzing the first captured image for image quality; and providing a signal indicative of the image quality.

[c19] The method of claim 13, wherein the step of causing includes the step of repositioning a moveable access piece that slides relative to the fingerprint sensor.

[c20] The method of claim 13, wherein the step of causing includes the step of providing an alignment guide for aligning a moveable access piece with respect to the fingerprint sensor.

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